Serial No. 09/731,225 Page 2 of 19

<u>IN THE CLAIMS:</u>

Please amend the claims as follows:

- Cancelled
- 2. Cancelled
- 3. Cancelled
- 4. (Currently Amended) In a digital video television communication system having a headend coupled to a two-way communication medium and at least one digital video settop box coupled to said two-way communication medium, said headend transmitting on a plurality of communication channels including first and second in-band video channels and an out-of-band region having at least one out-of-band communication channel, said first in-band video channel having a first plurality of multiplexed digital video channels and a plurality of data-packets in said first video channel, each of said data-packets being identified by a packet ID for carrying IP over MPEG data packets, said second in-band video channel having a second plurality of multiplexed digital video channels and a plurality of data-packets in said second video channel, each of said data-packets being identified by a packet ID for carrying IP over MPEG data-packets, a method of operation comprising:

sending a channel resource request from said settop <u>box</u> to said headend, said channel resource request representing a channel change <u>at said settop box</u> from [[a]] <u>one of the</u> multiplexed digital video <u>channels</u> in said first <u>in-band</u> video channel to [[a]] <u>one of the</u> multiplexed digital video <u>channels</u> in said second <u>in-band</u> video channel <u>at said settop box</u>;

determining whether said second <u>in-band</u> video channel has an available communication channel for dewnstream <u>transporting</u> IP packet data comprising

Serial No. 09/731,225 Page 3 of 19

an available packet ID for carrying IP over MPEG data packets in said second inband video channel using IP over MPEG data packets;

selecting <u>a selected communication channel</u> at said headend <u>by selecting</u> <u>one of:</u>

said available packet ID for downstream IP packet data from-said headend to said settop box as a selected available communication channel if said second <u>in-band</u> video channel has an <u>the</u> available communication channel for downstream <u>transporting the</u> IP packet data in said second <u>in-band</u> video channel [[,]]; and selecting at said headend

an one of the at least one out-of-band communication channel in said out-of-band region of said digital video television communication system for downstream IP packet data from said headend to said settep box as said selected communication channel if said second in-band video channel does not have an the available communication channel for downstream transporting the IP packet data in said second in-band video channel;

sending a channel resource confirmation message from said headend to said settop box, said channel resource confirmation message identifying said selected communication channel to said settop box; and

selecting said selected communication channel at said settop box for receiving the downstream IP packet data from said headend.

- 5. (Original) A method in accordance with claim 4, wherein said selected communication channel is identified in said channel resource confirmation message by a packet ID (PID) for carrying said IP over MPEG data packets on one of said in-band video channels.
- 6. (Currently Amended) A method in accordance with claim 4, wherein said selected communication channel is identified in said channel resource confirmation message as an the out-of-band communication channel in said out-of-band region of said digital video television communication system.

Serial No. 09/731,225 Page 4 of 19

- 7. Cancelled
- 8. Cancelled
- 9. Cancelled
- 10. (Currently Amended) In a headend for a digital video television communication system including said headend coupled to a two-way communication medium and at least one digital video settop box coupled to said two-way communication medium, said headend transmitting on a plurality of communication channels including first and second in-band video channels and an out-of-band region having at least one out-of-band communication channel, said first in-band video channel having a first plurality of multiplexed digital video channels and a plurality of data packets in said first video channel, each of said data packets being identified by a packet ID for carrying IP over MPEG data packets, said second in-band video channel having a second plurality of multiplexed digital video channels and a plurality of data packets in said second video channel, each of said data packets being identified by a packet ID for carrying IP over MPEG data packets being identified by a packet ID for carrying IP over MPEG data packets, a method of operation comprising:

receiving a channel resource request from said settop <u>box</u> at said headend, said channel resource request representing a channel change <u>at said settop box</u> from [[a]] <u>one of the multiplexed digital video channels in said first <u>in-band</u> video channel to [[a]] <u>one of the multiplexed digital video channel channels in said second <u>in-band</u> video channel <u>at said settop box</u>;</u></u>

determining whether said second <u>in-band</u> video channel has an available communication channel for downstream transporting IP packet data comprising an available packet ID for carrying IP over MPEG data packets in said second <u>in-band</u> video channel <u>using IP over MPEG data packets</u>;

selecting <u>a selected communication channel</u> at said headend <u>by selecting</u> one of:

Serial No. 09/731,225 Page 5 of 19

said available packet ID for downstream IP packet data from said headend to said settop box as a selected available communication channel if said second in-band video channel has an the available communication channel for downstream transporting the IP packet data in said second in-band video channel[[,]]; and selecting at said headend

an one of the at least one out-of-band communication channel in said out-of-band region of said digital video television communication system for downstream IP packet data from said headend to said settop box as said selected communication channel if said second in-band video channel does not have an the available communication channel for downstream transporting the IP packet data in said second in-band video channel; and

sending a channel resource confirmation message from said headend to towards said settop box, said channel resource confirmation message identifying said selected communication channel to said settop box.

- 11. (Original) A headend method in accordance with claim 10, wherein said selected communication channel is identified in said channel resource confirmation message by a packet ID (PID) for carrying said IP over MPEG data packets on one of said in-band video channels.
- 12. (Currently Amended) A headend method in accordance with claim 10, wherein said selected communication channel is identified in said channel resource confirmation message as an out-of-band communication channel in said out-of-band region of said digital video television communication system.
 - Cancelled
 - Cancelled
 - Cancelled

Serial No. 09/731,225 Page 6 of 19

16. (Currently Amended) In a settop box for a digital video television communication system having a headend coupled to a two-way communication medium and at least one digital video said settop box coupled to said two-way communication medium, said headend transmitting on a plurality of communication channels including first and second in-band video channels and an out-of-band region having at least one out-of-band communication channel, said first in-band video channel having a first plurality of multiplexed digital video channels and a plurality of data packets in said-first video channel, each of said data packets being identified by a packet ID for carrying IP over MPEG data packets, said second in-band video channel having a second plurality of multiplexed digital video channels and a plurality of data packets in said second video channel, each of said data packets being identified by a packet ID for carrying IP over MPEG data packets, said headend responsive to a channel resource request to select a selected communication channel for downstream IP packet data and send a channel resource confirmation message to said settop box, said channel resource confirmation message identifying said selected communication channel to said settop box, a method of operation comprising:

sending said a channel resource request from said settop box to towards said headend, said channel resource request representing a channel change at said settop box from [[a]] one of the multiplexed digital video channel channels in said first in-band video channel to [[a]] one of the multiplexed digital video channel channels in said second in-band video channel, at said settop box wherein said channel resource request is adapted for identifying a selected communication channel at said headend by selecting one of:

an available communication channel in the second in-band video channel if the second in-band video channel has capacity for transporting IP data;

one of the at least one out-of-band communication channel in the out-of-band region of the digital video television communication system if

Serial No. 09/731,225 Page 7 of 19

the second in-band video channel does not have capacity for transporting IP data;

receiving said <u>a</u> channel resource confirmation message identifying said selected communication channel to said settep box; and

selecting said selected communication channel at said settop box for adapting the settop box to receive receiving the downstream IP packet data from said headend as IP over MPEG data packets.

- 17. (Original) A settop method in accordance with claim 16, wherein said selected communication channel is identified in said channel resource confirmation message by a packet ID (PID) for carrying said IP over MPEG data packets on one of said in-band video channels.
- 18. (Original) A settop method in accordance with claim 16, wherein said selected communication channel is identified in said channel resource confirmation message as an out-of-band communication channel in said out-of-band region of said digital video communication system.
- 19. (Currently Amended) A digital video television communication system comprising:

a two-way communication medium having a plurality of communication channels including an out-of-band region having at least one out-of-band communication channel and a plurality of in-band video channels, each of the in-band video channels adapted for transporting IP data using a plurality of IP over MPEG data packets including a respective plurality of data packets, each of said IP over MPEG data packets being identified by a packet ID for carrying IP over MPEG data packets;

a digital video settop box[[,]] coupled to said two-way communication medium, said digital video settop box having comprising:

a digital video settop transmitter <u>for transmitting a channel resource</u> request on the two-way communication medium responsive in response to

Serial No. 09/731,225 Page 8 of 19

a video channel change at said digital video settop box; to transmit a channel resource request on said two way communication medium, said digital video settop box having and

a digital video settop receiver coupled to said two-way

communication system, for receiving said digital video settop receiver
responsive to a channel resource confirmation message containing
identifying a selected communication channel, said selected
communication channel comprising one of an available communication
channel in one of the in-band video channels and one of the at least one
out-of-band communication channel in said out-of-band region to receive
IP over MPEG data packets on said selected communication channel; and
a headend coupled to said two-way communication medium, said
headend having comprising:

- a headend receiver responsive to for receiving said channel resource request; and
- a headend transmitter to transmit for transmitting said channel resource confirmation message to said digital video settop box on said two-way communication medium.
- 20. (Currently Amended) In a digital video television communication system including a two-way communication medium having a plurality of communication channels including in-bandvideo a plurality of in-band video channels, each of the in-band video channels adapted for transporting IP data using including a respective plurality of IP over MPEG data packets, each of said IP over MPEG data packets being identified by a packet ID for carrying IP over MPEG data packets, and a headend coupled to said two-way communication medium, said headend adapted for generating responsive to a channel resource request to generate a channel resource confirmation message on said two-way communication medium responsive to a channel resource request, an apparatus comprising:

Serial No. 09/731,225 Page 9 of 19

a digital video settop box, coupled to said two-way communication medium, said digital video settop box having comprising:

a digital video settop transmitter <u>coupled to the two-way</u>

<u>communication medium for transmitting a channel resource request on the two-way communication medium response in response</u> to a video channel change at said digital video settop box; to transmit said channel resource request on said two way communication medium, said digital video settop box having and

a digital video settop receiver coupled to said two-way communication system[[,]] for receiving said digital video settop receiver responsive to said a channel resource confirmation message containing identifying a selected communication channel, said selected communication channel comprising one of an available communication channel in one of the in-band video channels and an out-of-band communication channel in an out-of-band region of the digital video television communication system, to receive IP over MPEG data-packets on said selected communication channel.

- 21. (Currently Amended) In a digital video television communication system including a settop box coupled to a two-way communication medium having a plurality of communication channels including a plurality of in-band video channels, each of the in-band video channels adapted for transporting IP data using including a respective plurality of IP over MPEG data packets, each of said IP over MPEG data packets being identified by a packet ID for carrying IP over MPEG data packets, an apparatus comprising:
- a headend coupled to said two-way communication medium, said headend having comprising:
- a headend receiver responsive to for receiving a channel resource request from said digital video settop box indicating a video channel change at said digital video settop box[[,]];

Serial No. 09/731,225 Page 10 of 19

a headend selector module coupled to said headend receiver for processing said channel resource request, the headend selector module operable for selecting a selected communication channel by selecting one of:

an available data communication channel from one of said plurality of in-band video channels identified in the channel resource request if the one of said plurality of in-band video channels has available capacity for transporting the IP data; and

an out-of-band communication channel in an out-of-band region of said digital video television communication system if if the one of said plurality of in-band video channels does not have available capacity for transporting the IP data; and

a headend transmitter coupled to said headend selector module said headend transmitter responsive to said channel resource request to transmit for transmitting a channel resource confirmation message in response to the channel resource request, wherein the channel resource confirmation message sontaining identifies [[a]] the selected communication channel, the selected communication channel adapted for transporting the IP data from the headend towards the digital video settop box for said digital video settop box to receive IP ever MPEG data packets on said selected communication channel.

- 22. (Currently Amended) A headend method in accordance with claim 21, wherein said plurality of communication channels further includes in-band video channels and an out of band region having at least one out-of-band communication channel, wherein said selected communication channel is identified in said channel resource confirmation message by a packet ID (PID) for carrying said IP over MPEG data packets on one of said in-band video channels.
- 23. (Currently Amended) A headend method in accordance with claim 21, wherein said plurality of communication channels further includes in band video channels and an out of band region having at least one out-of-band communication channel, wherein said selected communication channel is

Serial No. 09/731,225 Page 11 of 19

identified in said channel resource confirmation message as an out-of-band communication channel in said out-of-band region of said digital video communication system.